

Claims:

1. An antimicrobial agent obtained from a strain of *Lactobacillus salivarius* isolated from resected and washed human gastrointestinal tract which inhibits a broad range of Gram positive and Gram negative microorganisms and which secretes a product having antimicrobial activity into a cell - free supernatant, said activity being produced only by growing cells and being destroyed by proteinase K and pronase E, the inhibitory properties of said strain and its secretory products being maintained in the presence of physiological concentrations of human bile and human gastric juice, which has bacteriocin - like properties.
2. An antimicrobial agent according to Claim 1, which has the following properties:
  - (i) An apparent molecular weight between 30 and 100 kDa;
  - (ii) Heat stability;
  - (iii) Resistance over a wide pH range;
  - (iv) Resistance to treatment with detergents;
  - (v) Resistance to organic solvents;
  - (vi) Sensitivity to proteolytic enzymes including proteinase K, pronase E, trypsin,  $\alpha$  - chymotrypsin, ficin and papain; and
  - (vii) Resistance to lipase, catalase, alkaline phosphatase, phospholipase C and lipoprotein lipase.

3. A purified fraction of an antimicrobial agent according to Claim 2, which has the following properties:

- (i) A molecular weight of 5.0 - 5.3 kDa;
- (ii) A relative amino acid composition which has greater than 45% of hydrophobic amino acids, 19-21% glycine, 13-14% alanine and 11-12% leucine, no tryptophan or tyrosine, one methionine and four proline residues;
- (iii) An amino acid sequence SEQ ID NO: 1 at or adjacent to the N-terminus; and
- (iv) Comprises an amino acid sequence SEQ ID NO: 2.

4. A purified fraction of an antimicrobial agent according to Claim 2, which has the following properties:

- (i) A molecular weight of 5.3 - 6.1 kDa; and
- (ii) A relative amino acid composition which has greater than 28-30% of hydrophobic amino acids, 17% glycine and 12-13% alanine, no tryptophan and two proline residues.

5. An antimicrobial agent according to any one of Claims 1-4, for use in foodstuffs.

6. An antimicrobial agent according to any one of Claims 1-4, for use as a medicament.

7. An antimicrobial agent according to any one of Claims 1-3, for use against methicillin resistant *S. aureus* (MRSA).

8. The DNA sequence SEQ ID NO: 6 coding for bacteriocin ABP118.